

**The Influence of Mood on Social Competences:
Do We Perform Differently When We Feel Differently?**

Maurice Groen (250273)

Promoter: Dr. E. Derous

Co promoter: Dr. G. van Kooten

Erasmus University Rotterdam

Faculty of Social Sciences

Abstract

Much research has been conducted on the effects of affect. The present study examines whether different mood states (positive, neutral, negative) influence social competences as measured by a Situational Judgment Test in a lab experiment. It was expected that positive mood enhances social competences as opposed to neutral and negative moods. Results, however, showed that participants in a negative or neutral mood outperformed those in a positive mood on the overall score. The theoretical and practical relevance are discussed.

Introduction

A growing body of literature demonstrates that affect can have intriguing effects. For example, mood influences our cognitive categorization (Isen & Daubman, 1984), our stimuli evaluation (Isen, 1984), or our interpretation of other people's behavior (Erber, 1991). It appears that how we feel may influence how we think. Earlier research has mainly focused on cognitive processes (Ashby, Isen, & Turken, 1999). What has been examined to a lesser extent is how mood influences social competences and preferences. Therefore the present study examines whether mood influences the scores on a Situational Judgment Test (SJT) aimed to measure social competences. The SJT provides several scores. The most important SJT score is the overall score, which is an indication for one's social competences. Furthermore the SJT provides several style scores (e.g. "negotiating"), which represents one's preferences in social interaction.

In order to understand how mood could influence social competences and preferences, an extensive literature study is conducted. The term "affect" is often used interchangeable with emotion, mood or feelings. Therefore we will define these different terms first. Subsequently the effects of affect on cognitive processes and behavior are discussed. Third, some models on explanations for the

effects of mood are presented. Fourth, the study purpose, hypotheses, method and results are reported. Finally, theoretical and practical relevance as well as the limitations are discussed.

Affect, Emotions, Feelings, and Moods

In the literature no clear-cut definitions can be found for affect, emotions, feelings, and moods. Several authors have given different definitions. For instance, Isen (1984) states that “feelings” or “feeling states” are similar to “moods” and refer to “pervasive, global, generalized affective components or states that influence seemingly non-affect-related thought and behavior” (p. 185). Emotion on the other hand “demands attention and often signals the need for some specific, emotion-related action” (Isen, 1984, p. 186). Forgas (1991) argues that “affect” consists of moods and emotions. The distinction between these two is somewhat arbitrary, while some theorists propose that moods are “low-intensity and relatively enduring affective states with no immediately salient antecedent cause and therefore little cognitive content” (Forgas, 1991, p. 5). Emotions on the other hand “are more intense, short-lived and usually have a definite cause and clear cognitive content” (Forgas, 1991, p. 5). It can be concluded that no exact definition can be found, however, authors emphasize the differences between the different sorts of affect.

Rosenberg (1998) offers a useful framework to categorize different types of affect. This categorization is based on the assumption that there is a hierarchical organization between types of affect. She distinguishes between affective traits and two types of affective states, namely “moods” and “emotions”. This hierarchy does not say anything about importance; it only implies that higher levels of affect (e.g., affective traits) organize lower levels of affect (e.g., moods). Three criteria arrange the levels, namely “duration”, “pervasiveness in consciousness”, and “distributive breadth”.

The first criterion “duration” stands for the time period that an affect lasts. Affective traits last longest, being considered as part of one’s personality. Moods last not as long, but can last several days. Emotions are much more short-lived.

The second criterion “pervasiveness in consciousness” indicates how vividly the affect is represented in one’s consciousness. Rosenberg (1998) argues that affective traits are most pervasive because of three reasons. First, affective traits determine how susceptible people are to get in certain moods. They furthermore influence the probability that a certain mood occurs. Third, affective traits direct people what environment they choose. Moods are not as pervasive in consciousness as traits, but “may have subtle effects on thoughts of which people are not always aware” (Rosenberg, 1998, p.252). Emotions are lived intensely, but are not pervasive, as they do not last long enough.

The third criterion “distributive breadth” is the extent of the effect of affect on psychological and physiological processes. This implies that the longer the affective trait or state lasts and the more pervasive the trait or state is, the more psychological and physiological processes it may

influence. Affective traits therefore have the broadest distributive breadth. Moods influence many psychological and physiological processes, but not as long as affective traits do. Emotions on the other hand, have narrow distributive breadth, although attention direction is relatively strong.

In sum, according to Rosenberg (1998) there are three levels of affect. The highest level is trait affect, at the intermediate level is mood, and the lowest level of affect is emotion. All are hierarchal organized based on three criteria, of which duration is most important. The levels of affect and their criterions are listed in Table 1.

Table 1

Hierarchical organization of affect, based on Rosenberg (1998)

Criterion and level of affect	Ordinal status
Simple duration	
Affective traits	Longest
Moods	Intermediate
Emotions	Shortest
Pervasiveness in consciousness	
Affective traits	Most pervasive
Moods	Intermediate
Emotions	Least pervasive
Distributive breadth	
Affective traits	Broadest
Moods	Intermediate
Emotions	Narrowest

Effects of Affect

Affect has been found to have different kinds of effects. As described in the preceding section, it is important to discriminate among the levels of affect. Trait affect has been found to have other effects than state affect. For example, there is a strong association between trait positive affect and extraversion (Watson, Clark, McIntyre, & Hamaker, 1992). This implies that people who have a stronger positive trait are more likely to interact with others and they will be more energetic. Depressed people on the other hand are more likely to be accurate in judging their personal control in performance outcomes compared to their non-depressed counterparts (Alloy, Abramson, & Viscusi, 1981). The focus in this study, however, will be on the effects of state affect “mood”. This section will therefore concern studies on mood.

Mood has several important perceptual, behavioral, and cognitive effects. For example, positive mood can lead to greater cognitive flexibility and creative problem solving (Ashby et al., 1999). In one study participants in whom positive mood was induced gave more unusual first-associations to neutral words, than did the control group (Isen, Johnson, Mertz, & Robinson, 1985). The authors argue that positive state affect influences cognitive categorization, thereby enhancing creativity (in this case the greater amount of word associations). In another study Isen, Niedenthal, and Cantor (1992) demonstrated that participants in a positive mood categorized more inclusively. Participants had to rate exemplars for being an adequate example of a certain category on a 1 to 7 Likert-type scale. Categories and exemplars were differentiated in positive and negative categories and traits. For example, participants had to judge how well the positive exemplar 'circus clown' fitted the positive category 'entertaining type of people'. Results showed that participants in a positive mood rated weak exemplars of positive trait categories as better exemplars for the category than did the control group. This was not the case for exemplars with negative traits. The exemplars of the negative category were not rated as more fitting to the positive category. This is explained by enhanced cognitive flexibility; positive induced participants saw more connections for including weak exemplars in the mood congruent categories. A complete upward bias is not plausible, while the negative category exemplars were not rated higher by positive induced participants.

Furthermore, it was found that participants in a positive mood may perceive task characteristics differently and may have different task satisfaction. Kraiger, Billings, and Isen (1989) showed that participants in a positive mood evaluated tasks as more enriched and more interesting than participants in the control group. Apparently, mood also influences our perception. Isen and Shalke (1982) also demonstrated this in an experiment where participants had to evaluate stimuli. Results showed that participants in whom a good mood was induced rated the slides, categorized in pleasant, ambiguous, and unpleasant, differently than respondents in the negative mood condition. The positive mood participants rated especially the slides that were, on forehand described as ambiguous higher. A similar study was conducted by Erber (1991). Either positive, negative or neutral moods were induced. Participants subsequently read a description about people, either characterized by negative or positive traits. The participants had to estimate how these persons would behave. Results showed that participants in a positive mood estimated persons in the positive trait category to behave accordingly to that trait much higher; the opposite was found for subjects in a negative mood. These studies show that mood influences our interpretation of stimuli and even our expectations about others.

Another finding is that memory is influenced by mood (e.g., Forgas, Bower, & Krantz, 1984; Forgas & Bower, 1987). These studies showed that people memorized mood congruent material better than mood incongruent material. This especially was the case for people in a good mood, who

had to memorize mood congruent material. Simply stated, people who are in a good mood can memorize pleasant experiences during an amusing event (e.g., a nice conversation at a friend's party) better than unpleasant experiences during an amusing event (e.g., a quarrel at your friend's wedding).

Mood also has a differential effect on processing of persuasive communications (e.g. Bless, Clore, Schwarz, Golisano, Rabe, & Wolk, 1996; Ruder & Bless, 2003; Mackie & Worth, 1989; Bless, Mackie & Schwarz, 1992). Mackie and Worth (1989), for example, demonstrated this differential effect with an experiment where participants in three mood conditions (positive, neutral, negative) had to read a persuasive message with strong and weak arguments. They furthermore added two other conditions, one where the respondents had limited time to read the message and one where participants were not restrained by time. After reading this persuasive message, it was examined if the participants changed their attitude toward the position advocated in the persuasive message, from a comparison of each participant's pre-message and post-message positions on the issue. Results showed that participants with limited time in a good mood were persuaded by both strong and weak arguments, whereas participants in a neutral and negative mood were only persuaded by strong arguments. Participants in a good mood who had no time limit were only persuaded by strong arguments as well. The explanation the authors give is that mood has a differential effect on cognitive processing. This will be further explained in the subsequent section.

Furthermore has it been demonstrated that people in a positive mood use more constructive and cooperative bargaining strategies during negotiations (Carnevale & Isen, 1986). This experiment showed that people in whom positive affect was induced used less contentious tactics and came up with more integrative solutions compared to the control group. The authors argue that positive affect can enhance more productive negotiations.

George and Brief (1992) argue that positive mood can be an important determinant of organizational spontaneity. They propose a model in which several factors can determine one's mood, which in turn can be a determinant for organizational spontaneity. Organizational spontaneity consists of several forms of behavior, but they all are behaviors that are not formally described job tasks, but still facilitate the achievement of organizational goals. In other words, positive mood is assumed to influence behavior in an organizational context that contributes to the organization and the individual.

It has also been found that positive affect promotes helping behavior in several settings (Rosenhan, Salovey, & Hargis, 1981). It seems that being in a good mood stimulates one to be more altruistic and help other people. This also has been proven in an organizational context. Positive mood may influence prosocial behavior (George, 1991). Prosocial behavior contains both role-prescribed and extra-role behavior. This study demonstrated that people in a positive mood were more likely to be helpful at work.

In sum, affect has several important perceptual, behavioral and cognitive effects. More specifically, mood influences our memory, interpretation and expectations of others, processing of persuasive communications, enhances one's cognitive flexibility, promotes helping behavior and has an effect on bargaining strategies during negotiation. Why do these effects take place? Several explanations and interpretations for these phenomena have been given, which are briefly discussed in the subsequent section.

Theoretical Models

Why do we help other people when we feel good? Or why is it that we memorize mood congruent material better? Forgas (1995) suggests that there are two main theoretical explanations for the effects of mood on social judgments and categorization, which he summarized into the “affect-as-information-model” and the “affect-priming model” (p. 43-44). The “affect-as-information-model” theorizes that people use affect as a source of information. Instead of computing a judgment about an event, one inquires how s/he feels about this event and subsequently makes a judgment. This theoretical explanation is comparable to the explanation by Isen and Daubman (1984) for explaining different categorization by people in different moods. They suggest that positive induced subjects make larger units of categorization because of the use of certain heuristics. Positive affect thus enhances heuristic processing. Heuristic processing can be described as a more superficial, hasty and less thorough way of processing, as opposed to systematic processing, which is a more careful, detailed and elaborate manner of processing (Kunda, 1999).

The “affect-priming model” proposes that “affect can prime the encoding, retrieval, and selective use of information in the constructive processing of social judgments” (Forgas, 1995, p. 44). This has several consequences for how people process information. First, mood influences which stimuli we give attention to (“selective attention”). It is proposed that mood-congruent stimuli get more attention than incongruent stimuli. Second, mood influences our encoding in an affective-congruent way (“selective encoding”). Third, retrieval of information is influenced by mood (“selective retrieval”). It is more likely that mood-congruent information is retrieved when one is in a certain affective state, and thereby colors our retrieval of past knowledge. Fourth, affect influences our interpretation (“associations and interpretations”), while affect “can prime the kind of associations elicited by a stimulus and thus influence its subsequent interpretation (Forgas, 1995, p. 44).

Isen and Daubman (1984) give a similar explanation for mood effects on categorization. They argue that positive affect possibly primes positive aspects of stimuli, and therefore the retrieval of these stimuli is easier to recall in a positive state. People in a positive mood then categorize stimuli with an interconnectedness based on their affective tone. Forgas, Bower, and Krantz (1984) apply a

similar line of reasoning. They propose that the effect of mood on the interpretation of behavior is based on the semantic network theory. The use of certain categories to evaluate others' behavior is primed by mood. Our interpretation then is influenced by the applied category, or as the authors state: "the same facial expression may be classified by a happy viewer as a "friendly smile", and by a hostile or depressed viewer as a "condescending smirk". The viewers differ in the relative activation of their "smile" versus "smirk" categories according to their mood" (Forgas et al., 1984, p. 509). In other words, our interpretation depends on which semantic "nodes" are activated, which in turn is triggered by mood. In this view, mood has an indirect influence on our interpretation of stimuli.

Isen and Daubman (1984) suggest a third explanation for the effect of mood on categorization. The explanation for the wider categorization by people in a good mood could be that people in a positive state can come up with more material. The authors suggest that positive affect can influence the cognitive context and thereby influence the meaning and interpretation of stimuli. In this way, positive affect "serves to cue a large variety and amount of material, and this material creates a complex, extended context for cognitive activity, then positive affect may be setting a broad context that influences categorization and organization of material" (Isen & Daubman, 1984, p. 1213). Fredrickson (1998) follows a similar line of reasoning. She argues that studies on affect have mainly focused on negative affect, while the functions of negative affect have been much clearer. For example, fear is connected to the need to escape, and anger is associated with attacking (Fredrickson, 2001). The function of positive affect on the other hand is not very clear. Fredrickson (2001) argues though that positive affect does have a function, and calls this the "broaden-and-build theory of positive emotions". This theory implies that positive emotions enable people to broaden one's momentary "thought-action repertoires" and build one's personal resources. These personal resources include intellectual, social and physiological resources (Fredrickson, 2001). This theory assumes that positive affects do have a function, while it widens our thoughts, and that we are more open-minded than when we experience negative affect. This also implies that, when we are in a good mood, we are indeed more cognitive flexible compared to the times that we experience negative affect. The reason for this is that negative affect asks for specific action tendencies, which she describes as: "the outcome of a psychological process that narrows a person's momentary thought-action repertoire by calling to mind an urge to act in a particular way (e.g., escape, attack, expel)" (Fredrickson, 2001, p. 220). Positive affect on the other hand is not related to specific action tendencies, and therefore enhances (cognitive) flexibility.

The fact that people are more likely to be helpful to others when they feel good is explained by two reasons according to George (1991). The first is that people who experience a positive mood perceive others more positively and are more likely to be attracted to others (George, 1991). While one is more attracted to another, one is also more likely to be helpful to him or her. The other

possible explanation has motivational grounds. Helping behavior is self-reinforcing and facilitates people in a good mood to prolong their affective state (George, 1991).

Forgas (1995) furthermore proposes that people use four different information-processing strategies, and predicts when people apply a certain strategy. Furthermore, he argues that mood has a different influence on people's judgments, depending on these processes. Some strategies are more susceptible for mood effects than others. The basic idea is that someone (the judge) has to evaluate someone or something (the target) and that this process is influenced by the target's features, the judge's features, and the situational features. The target's features are familiarity, typicality, and complexity. The judge's features are "the personal relevance of the judgment, the existence of a motivational goal, and the cognitive capacity and affective state of the judge at the time" (Forgas, 1995, p. 48). The situational features consist of "the need for accuracy, social desirability expectations, and the availability of objective criteria" (Forgas, 1995, p. 48). It is predicted that mood has the least influence on judgments based on direct retrieval of stored evaluation ("the direct access strategy"). This strategy is applied, because the target can be familiar, or not relevant and not complex. An example would be if you asked a friend if she likes cranberries or not. The answer would not depend on her mood at that time; she simply does or does not like them. Mood is also predicted to have little influence on judgments that are motivated ("motivated processing strategy"). In this case people "are likely to engage in highly selective, guided, and targeted information search and integration strategies designed to support a preexisting motivational objective" (Forgas, 1995, p.47). An illustration would be if you were asked to decide which new cell phone you would want to have (assuming you are interested in cell phones). According to the processes behind this strategy, you would be highly motivated, goal directed, and selective in your choice of information. Mood therefore is predicted not to be influential in your decision making process.

The other two strategies are called 'heuristic processing', and 'substantive processing', and are more prone for mood influences. The former is a strategy described earlier; it does not cost much cognitive effort, and is mostly used when "the personal relevance is low, there are no specific motivational objectives, the judge has limited cognitive capacity, and the situation does not demand accuracy or detailed consideration" (Forgas, 1995, p. 47). Substantive processing on the other hand costs more cognitive effort and is a more elaborate and systematic way of processing information. This strategy is used when "the target is complex or atypical and the judge has no specific motivation to pursue, has adequate cognitive capacity, and is motivated to be accurate, possibly because of explicit and implicit situational demands" (Forgas, 1995, p. 47).

These theoretical explanations can be complemented by the explanations given by several authors for the differential effects of mood on processing persuasive messages (e.g. Bless, Mackie, &

Schwarz, 1992; Mackie & Worth, 1989). They argue that positive mood interferes with the use of systematic processing, and that therefore people in a positive mood are more easily persuaded by weaker arguments than subjects in a neutral or negative mood. That systematic processing is more difficult for people in a good mood is explained by an increased amount of positive material present at the working memory. This is then again compatible with more cognitive flexibility when cognitive flexibility concerns positive material. A comparable explanation in the persuasion literature is given by Bless, Mackie, and Schwarz (1992). They argue that people in a good mood simplify cognitive processing by reducing the amount of message elaboration, whereas people in a neutral or negative mood use more systematic processing of the content of the message. People in a good mood are more likely to use global evaluations than people in a negative or neutral mood. This is explained by Bless, Clore, Schwarz, Golisano, Rabe, and Wolk (1996) while individuals' affective states inform them about the nature of the present situation. A positive mood indicates that one is in a comfortable situation and in those situations one can trust their heuristic processing, systematic processing is not necessary. "In contrast, sad individuals focus on the specifics of the situation, reflecting that their mood signals a problematic situation that renders it risky to rely on one's default routines" (Bless et al., 1996). In other words, when people are in a negative mood, the situation is uncomfortable and calls for systematic processing in order to increase the potential of positive outcomes.

In summary, several interpretations and explanations for the effects of affect have been given. None of them can be fully recognized as complete explanations; they are mere speculations for why they take place. Fact is that mood does influence our lives. The effects of mood have been studied in several domains, mainly cognitive processes and some behavioral effects have been focused on. However, some domains have not yet been explored. One of them is how mood would influence social competences. The following section discusses this in further detail.

Purpose of the Research

Mood influences people in numerous ways as has been demonstrated in the preceding sections. We not only think differently, but also act differently because of our mood fluctuations. What has been examined to a lesser extent is whether people may perform differently in social life when we feel differently. Performance here is associated with social competences. Social competences have been defined in different ways. Social competence has firstly been described by Thorndike (1920) as: "the ability to understand and manage men and women, boys and girls – to act wisely in human relations" (p. 228). Schneider, Ackerman, and Kanfer (1996) state: "We define social competence as socially effective behavior and its cognitive, affective and conative antecedents. Socially effective behavior is behavior that is instrumental in helping people achieve personal goals

that are social in nature” (p. 471). The several definitions generally state that social competence is how well or competent we behave in social situations.

Many studies on social competences have been conducted, and one of the main conclusions is that social competences can be seen as a multidimensional concept that is related to but distinct from academic intelligence (e.g. Lee et al., 2000; Kosmitzki & John, 1993). Schneider et al. (1996) draw some important conclusions by stating that social competence in fact is a multidimensional concept, with several independent dimensions. Furthermore, they conclude that social competence is correlated with some personality traits, and less correlated with academic intelligence. They therefore suggest that social competence should not be seen as a single entity, but social competences that fit one social situation do not necessarily fit another situation. For example, a managing director of a fast moving consumer good company should have different social competences than the head of kindergarten. In order to be effective in reaching their goals, they have different people to cooperate with and find themselves in different social situations. The social competences that are effective in one situation are probably not effective in the other situation.

Thus, social competences refer to how well one acts in social situations, and is differentiated from academic intelligence. However, social competence is a compound concept and consists of several dimensions. What these dimensions exactly are differs in the literature (Schneider et al., 1996). Lee et al. (2000) for example distinguish two forms of social competences, which are social inference and social knowledge. Social inference is described as the ability to read perceptual cues and to make correct inferences about others’ internal states, like emotions and motivations. Social knowledge is described as the knowledge of etiquettes. In the study by Kosmitzki and John (1993) participants were given explicit items that they had to rate as forms of social intelligence. Subsequently, the participant had to rate a peer with these items. Results showed that three factors could be distinguished. The first was called social intelligence, which included the items about behavioral abilities and skills, for example the item “understanding people” (Kosmitzki & John, 1993, p. 15). The second dimension was named “social influence” and consisted of items that described the motivated use of social intelligence. An example item is “Being good at motivating and leading others” (Kosmitzki & John, 1993, p. 19). The third factor included items that resembled the ability to remember faces and names.

Social competences are defined differently. Even when several dimensions are distinguished, authors do not agree exactly what these dimensions are. However, there is agreement that social competences do make a difference, or as Schneider et al. (1996) state: “The importance of social competence need hardly be argued. To successfully negotiate their way through life, people must refrain from offending their colleagues in business meetings, get along with roommates; attract

lovers, friends, and clients; inspire subordinates. Successfully addressing social tasks such as these is an important part of life for virtually everyone” (p. 469).

The following rising question is how these competences can be measured. In organizational contexts several tools have been developed in order to find out if a candidate is suitable for a vacant job and to verify if the candidate is competent. Examples of tools are interviews, IQ tests, personality tests, the use of biographical data and assessment centers. One other method that can be used is the Situational Judgment Test (SJT), which commonly is a test where a scenario is presented to the candidate and the candidate is then asked to choose the best response or rate the given responses (Landy & Conte, 2004). Although SJTs can be developed for many competences, most SJTs are developed to measure interpersonal and practical competences (Maesen de Sombreff, Born, Oudenhoven-van der Zee, & Ruhe, 2003).

In this study we use a SJT that is based on the dissertation of Reuver (2003). She developed an instrument aimed to measure conflict management, the “Test for handling common organizational conflicts (TOC)” (Reuver, 2003). The instrument measures how managers manage daily interpersonal conflicts at work and she distinguishes three descriptive dimensions and six conflict styles. The three dimensions are “confrontation”, “integration”, and “competition”. The “confrontation” dimension ranges from passive, resigned behavior to an active and intense way of handling conflicts. The “integration” dimension ranges from cooperative, inviting behavior to indirect and reserved behavior. The “competition” dimension opposes persistent behavior to flexible and changeable behavior. By dividing the conflict styles by these dimensions, the following six styles are distinguished, “dominating”, “indirect fighting”, “collaborating”, “negotiating”, “accommodating”, and “avoiding”. “Dominating” is described as actively emphasizing the conflict situation, and one tries to maintain one’s own vision and standpoint without putting effort in other approaches and solutions (high on “competition” and high on “confrontation”). “Indirect fighting” is described as maintaining one’s own standpoint without putting effort in other solutions by influencing the procedures of other parties. It is characterized by avoiding face-to-face contact and one tries to oppose the other (high on “competition” and low on “integration”). The third style is “collaborating”, here one tries to openly discuss the problem and try to identify the problems of the conflict and to come to integrative solutions (high on “confrontation” and high on “integration”). “Negotiating” refers to the degree one is open for the other’s opinion, but is more determined to his or her own interest and tries to make settlements (high on “integration” and low on “competition”). “Accommodating” refers to how well one tries to avoid confrontations, by accepting the other’s standpoint and by giving up one’s own interests (low on “confrontation” and low on “competition”). Finally, “avoiding” refers to the avoidance of the confrontation by not reacting and withdrawing (low

on “confrontation” and low on “integration”). The dimensions and styles are graphically displayed in Figure 1.

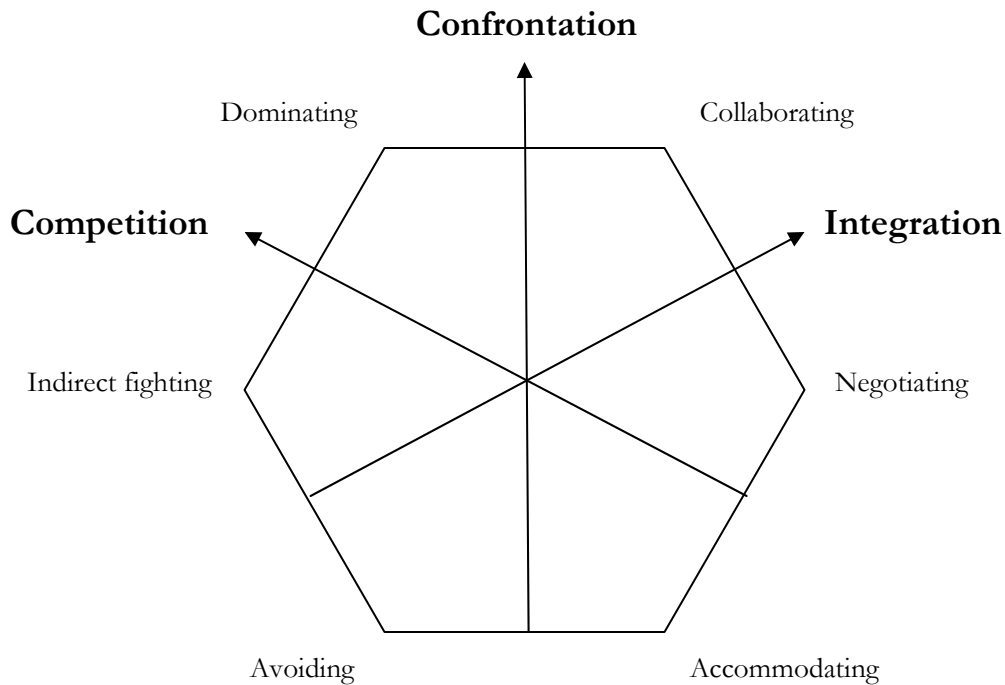


Figure 1. *The six conflict styles and three descriptive dimension, based on Reuver (2003)*

The relationships between the six styles are as follows. The styles that are opposite are negatively related. For example, more collaboration elicits less avoiding behavior. The styles that are adjacent are positively related. For example, more accommodating elicits more avoiding behavior.

The SJT in this study provides the six style scores as described above along with an overall score. The test takers are presented with 15 social situations. For each situation four possible reactions are given. The test taker has to rate every one of these reactions on their effectiveness. Several reactions represent one of the six style scores. The amount of reactions per style is not proportional. The style score is then calculated by how high the test taker rated these reactions. In addition to these six scores, an overall score on the test is calculated. This score is calculated by comparing the ratings of experts to the ratings of the test taker. The more answers correspond to the expert's ratings, the higher the total score of the test taker is. This total score can be seen as a comparison of how experts would react in this situation and how the test taker would react, and gives an indication for how social competent the respondent is. The overall score is based on all the items in the SJT. The style scores merely give an indication for which social behavior style one prefers in social intercourses (see further, Method section).

While mood may influence people in several ways, it can be expected that mood influences social competences. Therefore it will be examined in this study if people perform differently on the SJT depending on their induced mood. Several hypotheses are postulated that will give the expected direction of some of the scores on some of these dimensions based on the earlier discussed theory.

Research Question and Hypotheses

The main research question for this study is: *“Does mood influence test scores on a Situational Judgment Test aimed to measure social competences?”* In order to answer the main research question, five hypotheses are developed and postulated. Several of earlier described studies (Ashby et al., 1999; Isen et al., 1985; Isen et al., 1992; Isen & Daubman, 1984) discussed the effect of mood on cognitive flexibility. All authors argue that positive mood enhances cognitive flexibility and creative problem solving. Furthermore Fredrickson (1998; 2001) argues that positive affect widens our thoughts and negative affect narrows our action repertoire. These arguments can be extrapolated to social interactions. In other words, it can be argued that people in a positive mood are more cognitive flexible, more open minded and can come to more reciprocal beneficial solutions in social interactions. Translated to the SJT, the following hypothesis is postulated.

Hypothesis 1: The overall score for the positive mood group will be significantly higher than the overall score of the control group and the negative group.

As described earlier Carnevale and Isen (1986) have demonstrated that positive affect facilitates constructive, cooperative bargaining strategies. In their experiment the subjects in whom positive mood was induced showed increased integrative solutions and used less contentious tactics. They concluded that positive affect may facilitate bargainers to come to better settlements. This leads to the following hypothesis.

Hypothesis 2: Mood will affect “negotiating” in such a way that the SJT-scores on “negotiating” for participants in the positive mood group will be significantly higher than those in the control group and negative mood group.

Positive mood has been found to be associated with more role-prescribed and extra role forms of prosocial behavior, in other words people in a good mood are more likely to be helpful for their colleagues (George, 1991). Furthermore, Staw, Sutton, and Pelled (1994) conclude that experimental research consistently shows that subjects induced in a positive mood are more likely to be helpful to others. A similar conclusion was drawn by Rosenhan, Salovey, and Hargis (1981), while they state

that positive affect promotes helping behavior in several kinds of settings. This results in the next hypothesis.

Hypothesis 3: Mood will affect “collaborating” in such a way that the SJT-scores on “collaborating” for participants in the positive mood group will be significantly higher than those in the control group and negative mood group.

Mood has an effect on interpretation of social interactions; people in a positive mood are more likely to assess ambiguous social interactions more positively and people in a negative mood are more likely to assess ambiguous social interactions more negatively (Forgas et al., 1984). A similar conclusion was drawn by Erber (1991). Here subjects made mood-congruent estimates of other people and estimated the other’s behavior in a mood-congruent way as well (see the earlier described experiment by Erber, 1991). Furthermore, the theory of Reuver (2003) predicts that more dominant behavior elicits dominant behavior. “Dominating” was defined as actively emphasizing the conflict situation, and one tries to maintain one’s own vision and standpoint without putting effort in other approaches and solutions. This leads to the following hypothesis:

Hypothesis 4: Mood will affect “dominating” in such a way that the SJT-scores on “dominating” for participants in the positive mood group will be significantly lower than those in the control and negative mood group. SJT-scores for “dominating” will be highest for the negative mood group.

A similar line of reasoning is applied to “indirect fighting” as has been used for “dominating”. It is expected that ambiguous behavior that is interpreted as maintaining one’s own standpoint without putting effort in other solutions elicits similar behavior. Therefore, participants in the negative mood group will fight in a more indirect way compared to those in the positive mood group. In addition it is hypothesized that the opposite holds true for the positive mood participants. The following hypothesis is therefore postulated:

Hypothesis 5: Mood will affect “indirect fighting” in such a way that the SJT-scores on “indirect fighting” for participants in the positive mood group will be significantly lower than those in the control and negative mood group. SJT-scores for “indirect fighting” will be highest for the negative mood group.

Finally, since we are not aware of studies that have investigated the effect of mood on avoiding confrontations and accepting other's standpoints, no specific hypotheses are formulated. Hence, we will investigate in an explorative way whether mood has a differential effect on these styles. The following research question is formulated.

Research Question: Will mood have a differential effect on “accommodating” and “avoiding” behaviors?

Method

Sample

Participants were 102 psychology students (79 females, and 23 males) from the Institute of Psychology at the Erasmus University Rotterdam, who participated for course credits. Participants were randomly assigned to one of the three conditions (positive/neutral/negative).

Four respondents were excluded from the dataset. Three of them did not follow the instructions as asked for. They continued with the SJT directly after the tutorial, instead of starting with the mood induction procedure. One participant had too much difficulty understanding the Dutch language (i.e., the questions asked as well as the social situations and reactions on these situations). After excluding these four respondents 98 respondents remained; 76.6% ($n = 76$) was female and 22.4% ($n = 22$) was male. The average age was 20.81 years ($SD = 3.81$). The ethnicity was comprised as follows: 74.5% was White/Caucasian; 8.2% Black/African; 5.1% Asian; 1.0% Latin-American; 5.1% Arab; 6.1% other. The program in which the respondents were in was comprised as follows: 68.4% ($n = 67$) Bachelor 1; 17.3% ($n = 17$) Bachelor 2; 1.0% ($n = 1$) Bachelor 3; and 13.3% ($n = 13$) were in their Master year. The negative group consisted of 30.6% ($n = 30$) of the respondents, the neutral group of 34.7% ($n = 34$) and the positive group of 34.7% ($n = 34$). There were no missing values among the remaining sample ($n = 98$).

Mood Induction Procedure

Mood was induced by a combined mood induction procedure, adapted from Gilboa-Schechtman, Revelle, and Gotlib (2000). Gilboa-Schechtman et al. (2000) used a combination of a music induction procedure and an imagination induction procedure. The imagination procedure was based on instructions for earlier experiments (e.g., Wright & Mischel, 1982; Salovey, 1992; Green, Sedikides, Saltzberg, Wood & Forzano, 2003; Wood, Saltzberg & Goldsamt, 1990).

The induction procedure was digitally recorded and lasted for 8 minutes. Participants were firstly instructed to relax and make themselves comfortable, and focus their attention on the coming instructions. They were then asked to imagine situations that would make them feel happy, sad, or

neutral, depending on the condition. The situations could be real past events, or hypothetical; this was left to the participant in order to intensify the mood. The participants were instructed to imagine the situations as vividly as possible, and feel the feelings that they had or would have at that moment. These instructions lasted for 2 minutes, participants were then asked to write down their feelings and describe the situation in an essay. This lasted 6 minutes and participants were then instructed to stop this part of the experiment and continue on the subsequent part.

During the essay part of the induction procedure one of the three, depending on the mood group, musical selections was played. The musical selection for the positive group consisted of an excerpt of Vivaldi's "Spring" concerto of the "Four Seasons", as used by Gilboa-Schechtman, et al. (2000). In the neutral condition subjects listened to two Chopin Waltzes, No. 11 in G flat, and No. 12 in F minor. These selections were also used by Wood, Saltzberg, and Goldsamt (1990), and by Green, Sedikides, Saltzberg, Wood, and Forzano (2003). For the negative condition Prokofiev's "Russia under the Mongolian Yoke" was used, played at half speed. This musical selection was used by Green et al. (2003), by Mayer, Gayle, Meehan, and Haarman (1990), and Clark and Teasdale (1985) to induce negative mood.

Procedure

Before the experiment was conducted, a pilot test was performed. Four participants took the experiment and gave comment on the experiment. No important adjustments were made on basis of the comment.

Participants were randomly assigned to the mood condition. The experimenter saw subjects individually. The experimenter escorted the subjects to a computer room, where the procedure and purpose of the experiment was explained by the experimenter. After this explanation, participants had to fill in the first form, which consisted of the short Dutch version of the NEO Personality Inventory (Hoekstra, Ormel & Fruyt, 1996), the PANAS scale (Watson, Clark, & Tellegen, 1988), and demographics (PANAS and demographics are included in Appendices A and B). Subsequently subjects were instructed to follow the tutorial for the SJT, which included an instruction and two examples. Participants put on headphones and took this tutorial on the computer. After completion of the tutorial, subjects were asked if they had questions about the SJT or about the experimental procedure. The experimenter then started the instructions on an iPod and left the room. The first 2 minutes included specific instructions and the imagination task. Subjects then had 6 minutes to write down their thoughts and feelings. During these 6 minutes, one of the three musical selections was played continuously on the background. The iPod ended with the instruction to fill out the second form, which consisted of the manipulation check items. On the bottom of this form, written

instructions stated that they had to put on the headphones for the computer again and start the SJT on the computer. Upon completion the subjects returned to the experimenter and were debriefed.

Measures

Big five personality. First, the official Dutch short version of the NEO PIR, namely the NEO-FFI (Hoekstra, Ormel & Fruyt, 1996) was administered, as a control. There are two main reasons for including the Big Five as a control. First, it has been demonstrated that SJT's might correlate with personality dimensions (McDaniel & Whetzel, 2005). Second, Larsen and Ketelaar (1991) found that people with differences in personality traits were differentially susceptible for mood inductions. Specifically, results showed that the positive mood induction was more effective on participants scoring high on extraversion, than participants scoring low on this dimension. The negative mood induction was more effective on participants who scored higher on neuroticism than who scored relatively low on this dimension.

Positive/Negative affect. The momentary version of the PANAS scale, developed by Watson, Clark, and Tellegen (1988) was administered after the NEO FFI to measure the initial mood state. A Dutch version of the PANAS (Watson et al., 1988) measured the positive (PrePAS) and negative affect (PreNAS) dimensions. Cronbach's alpha for PrePAS was .86 and for PreNAS .82. An example item is: "Indicate to what extent you feel *lively* right now, that is, at the present moment" using a 5-point Likert-type scale (1 = *very slightly or not at all*; 5 = *extremely*). All items have undergone a translation/back-translation procedure (English-Dutch-English), and are included in Appendix A.

Demographics. Several demographics were included subsequent to the PANAS, which can be found in Appendix B. The items in this section were *name, id number, sex, age, study, study year, and ethnicity*.

Mood manipulation check. After the mood induction procedure subjects were asked to rate their current mood by 13 items (see Appendix C). The first 12 items were used by Larsen and Ketelaar (1991) to measure mood. Positive affect items were *enthusiastic, excited, lively, elated, peppy, and euphoric* (PostPAS in table 2). Negative affect items were *annoyed, anxious, jittery, distressed, fearful, and nervous* (PostNAS in table 2). The overall mood score (PANAS) is calculated by subtracting the negative affect dimension (PostNAS) from the positive affect dimension (PostPAS). The alpha for the PANAS was .76, for the PostPAS .93, and for PostNAS .87. All items were scored on a Likert-type scale ranging from 1 = *not at all* to 7 = *extremely well*. Item 13 was based on an item developed by Andrews and Withey (1976). They conducted a study about perceptions of well-being and developed several measures for respondents' feelings. One of the scales is the Faces Scale, which is a nonverbal graphic scale on which respondents can choose one of the faces which best depicts the feeling they have on several types of variables (e.g. perceived well being as a whole, or how they feel about their

current job). For our manipulation check participants were asked to choose the face that best depicted their current mood (see Appendix D).

Social competences. Social competences were measured by means of a Situational Judgment Test, developed by Van der Maesen & Koch HRM advies, a well-established human resource advising company in The Netherlands. This SJT consists of 15 situations (social interactions) and 4 reactions per interaction. This SJT differs in form from video SJTs in that social interactions and reactions are spoken and illustrated by cartoons instead of videotaped. The test taker is asked to score each reaction to a social situation on a 5-point Likert-type scale on its effectiveness for the social situation. The SJT test scores consist of seven partial test scores: one overall score and six style scores (see also section Purpose of this research), each representing one of the six social behavior styles, namely “dominating”, “indirect fighting”, “collaborating”, “negotiating”, “accommodating”, and “avoiding”. The Cronbach’s alpha for the overall score was .69, for “dominating” .73, for “indirect fighting” .47, for “collaborating” .58, for “negotiating” .35, for “accommodating” .64, and for “avoiding” .15. The alpha’s for the styles were computed by using the scores for the items per style score. The alpha for the overall score was computed by using the absolute differences between the participant’s ratings and the expert norm scores. The alpha’s are relatively low, but this can be explained by two reasons. First, internal consistency measure is not an ideal reliability measure for SJT’s, while they generally measure heterogeneous content (Lievens & Coetsier, 2002). Taking this into account, the alpha for the overall score is satisfactory. The low alpha’s for the style scores can be explained by the low number of items of which the scores are composed (varying from 3 to 17 items per style score). All 7 final scores are rated on a 4-point Likert-type scale, with 4 being the highest possible score. The overall score is a score for how well they performed on the SJT and is calculated as follows. A total of 15 experts rated each reaction and the average expert score is calculated for each reaction (i.e., resulting into a norm score per reaction). The overall score is further calculated by subtracting the norm scores (i.e., 60 reactions) from the scores that the test takers gave. If the differences with the norm scores are low, the overall score will be high. The style scores are absolute scores, indicating the social intercourses the test taker prefers. These style scores are based on fewer items than the overall score. Furthermore it should be stressed that style scores are merely indicating the kind of social style one prefers. This does not have to say that some styles are better; as mentioned, style scores are absolute scores instead of norm scores. Theoretically it is possible that a test taker scores a 1 for all style scores (absolute) but a 4 on the overall score (norm). The SJT was an existing test, developed for a former customer. At that time, the SJT was taken by 116 test takers, Cronbach’s alpha for the overall score was .78.

Results

Descriptive statistics

Table 2 (Appendix E) shows the means, standard deviations, internal consistency reliabilities (Cronbach's alpha), and the correlations among the (composed) variables. Several results are worth noting, despite that the correlations are merely indications. First, mood was correlated with all mood checks. This can be interpreted as an indication that the mood induction procedure has been successful. Second, mood is correlated with the overall score, which can be an indication for an effect of mood on the overall score. Third, most of the control variables are not correlated with the dependent variables. The correlations that are statistically significant give rise for further examination, which will be discussed in the following sections. Conclusions will be drawn based on the adequate analyses in the subsequent sections.

Mood manipulation check

To check whether the mood induction procedure was successful a MANOVA and several one-way ANOVAs were performed. First a MANOVA is performed to assess the statistical effect of the independent variable on the dependent variables. In other words, it is examined if the mood induction procedure influenced the mood checks.

The requirement that the dependent measures are statistically correlated is fulfilled, all mood checks (PostPAS, PostNAS, PANAS, and Faces Sale) are all correlated with one another (see Table 2). This is straightforward theoretically as well. All checks should measure the same construct, one's mood at that moment. Note that the overall mood score (PANAS) is calculated by subtracting the negative affect dimension (PostNAS) from the positive affect dimension (PostPAS). The Faces Scale was an item where respondents could indicate which face represented their mood best for that moment; which can be seen as a graphical summary of the PANAS. MANOVA multivariate test results (Wilk's Lambda) show that the effects from the mood induction procedure are significant ($p < .01$, $\eta^2 = .39$). Table 3 summarizes the results.

Table 3

MANOVA for mood checks (PostPAS, PostNAS, PANAS and Faces Scale)

	<i>F</i>	<i>df</i>	<i>p</i>	η^2
PostPAS	33.96	2, 97	< .01	.42
PostNAS	15.28	2, 97	< .01	.24
PANAS	42.42	2, 97	< .01	.47
Faces Scale	54.91	2, 97	< .01	.54

Furthermore, the individual dependent variables were examined by performing one-way ANOVAs (see Table 4). First, the means of the positive dimension of the post mood induction procedure PANAS (PostPAS) were compared for the three mood groups. There was a significant effect of mood induction on PostPAS, $F(2, 95) = 33.96, p < .01$. According to Cohen (1977) effect sizes for eta square (η^2) of .01 are small, .09 are medium, and .25 or greater are large. The effect size was large, while $\eta^2 = .42$. The positive group had the highest mean ($M = 4.28$), followed by the neutral group ($M = 3.29$) and the negative group ($M = 2.21$). Post-hoc test (Tukey) showed that all three groups statistically differed from each other as well at the $p < .01$ level.

Second, the means of the negative affect dimension of the post induction procedure PANAS (PostNAS) were compared. There was a significant effect of mood induction on PostNAS, $F(2, 95) = 15.28, p < .01$. The effect size was medium to large ($\eta^2 = .24$). The negative group had the highest mean ($M = 2.11$), followed by the positive group ($M = 1.44$) and the neutral group ($M = 1.20$). Post hoc test (Tukey) results showed that all groups statistically differed from each other at the $p < .01$ level, except for the difference between the means of the positive and neutral group. In other words, the positive and neutral group did not statistically significant differ from each other on the negative affect dimension, but means were lowest for these groups when compared to the negative mood condition.

Third, the means of the computed PANAS scale (i.e. PostPAS -/- PostNAS) were compared. Results show that the three groups significantly differed from each other, $F(2, 95) = 42.42, p < .01, \eta^2 = .47$ (large effect size). The negative group had the lowest mean ($M = .10$), the mean of the neutral group was higher ($M = 2.09$), and the positive group had the highest mean ($M = 2.84$). Furthermore, post hoc test (Tukey) showed that all three groups significantly differed from each other at the $p < .05$ level.

The last dependent variable that was examined was the Faces Scale. The three groups differed from each other at the $p < .01$ level, $F(2, 95) = 54.91$. There was a large effect size ($\eta^2 = .54$). The means are as follows: The negative mood group had the lowest mean ($M = 3.63$), the positive group the highest ($M = 5.97$), and the neutral group felt in between ($M = 5.35$). Post hoc test (Tukey) showed that all three groups significantly differed from each other at the $p < .05$ level.

In sum, all analyses show that the groups statistically differed from each other (except the means of the neutral and positive group for the PostNAS). Also all means were in the expected direction: The positive group scored highest on the mood checks, followed by the neutral group, the negative group scored lowest. These results suggest that the mood induction procedure was effective. The figures are summarized in Table 4.

Table 4

Means, Standard Deviations, and ANOVA results for Mood Checks (PostPAS, PostNAS, PANAS and Faces Scale)

	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>	η^2
PostPAS			33.96	2, 95	< .01	.42
Negative	2.21	.78				
Neutral	3.29	1.10				
Positive	4.28	1.07				
PostNAS			15.28	2, 95	< .01	.24
Negative	2.11	.97				
Neutral	1.20	.38				
Positive	1.44	.60				
PANAS			42.42	2, 95	< .01	.47
Negative	.10	1.25				
Neutral	2.09	1.13				
Positive	2.84	1.27				
Faces Scale			54.91	2, 95	< .01	.54
Negative	3.63	1.07				
Neutral	5.35	.95				
Positive	5.97	.72				

Check potential covariate variables

Analyses were performed in order to control for potential covariate variables following the MANCOVA procedure for covariates (Grimm & Yarnold, 1997).

First, the influence of two *personality dimensions* on the effectiveness of the mood induction procedure was examined. As stated before (see Measures section) it was found that people scoring higher on the ‘Neuroticism’ and ‘Extraversion’ dimension were differentially susceptible for mood inductions (Larsen & Ketelaar, 1991). In order to perform a test for covariance, a MANCOVA procedure requires a statistically significant linear relationship between the dependent variables and the covariate (Grimm & Yarnold, 1997). Results show that there were no statistically significant relationships between Neuroticism and the mood checks PostPAS, PostNAS, PANAS, and Faces Scale (see Table 2). Extraversion was only negatively correlated with PostNAS (see Table 2). The condition that the covariate correlates with all the dependent measures is not fulfilled. Therefore, MANCOVA should not be performed for these covariates (Grimm & Yarnold, 1997).

Second, it was examined if the *initial mood state* influenced the manipulation checks or effectiveness of the mood induction procedure. Both the initial positive dimension (PrePAS) and initial negative dimension (PreNAS) did not correlate with all the dependent variables. Therefore, a MANCOVA should not be performed for these two possible covariates (Grimm & Yarnold, 1997).

However, while PrePAS significantly correlates with PostPAS and PANAS it is examined if PrePAS correlates with the main dependent variables of this study (the 6 style scores and the overall score). No significant relationships were found between PrePAS and the 6 style scores nor with the overall score (see Table 2). The final check that was performed were ANCOVAs for mood, PrePAS as a covariate and the style scores and overall scores as the dependent measures. ANVOVA results showed no significant effect for PrePAS as a covariate.

Third, it was examined if *sex* influenced the effectiveness of the mood induction procedure, while some authors state that women and man react somewhat differently to mood inductions (Forgas & Moylen, 1987). Table 5 shows the results.

Table 5

MANOVA for mood and sex

	<i>F</i>	<i>df</i>	<i>p</i>	η^2
Mood	12.78	3, 97	< .01	.30
Sex	.22	3, 97	.88	.01
Mood - Sex	1.13	3, 97	.35	.04

It can be concluded that sex did not influence the effectiveness of the mood induction procedure; $F(3, 97) = .22, n.s.$

Mood congruent judgments

Several authors argue that in some cases judgments are based mainly on mood (Forgas, 1995; Isen, Niedenthal, & Cantor 1992; Kunda, 1999). This implies that answers on questions can be biased by mood; one answers questions more positively when in a good mood and more negatively when in a bad mood. In other words, the answers are congruent with one's mood. In order to check for this possible bias for this study the average is calculated for all the six styles per participant. The six style scores are absolute scores and specify how the participant rated the reactions representing the style score. Note that this is not the same as the overall score, while the overall score is a norm score, calculated by subtracting the respondent's score on each individual situation from the expert's norm score (see Purpose of the Research section). If the answers (i.e. ratings of the reactions) for the style scores would be mood congruent, the positive group would answer the questions more positively, and the negative group would answer the questions more negatively.

In order to check for this possible bias six one-way ANOVAs were performed. Results show there were no statistical differences between the averages of the three mood groups (see Table 6).

Table 6

One-Way ANOVAs for the styles scores

Style	Condition						F	df	p
	Positive		Neutral		Negative				
	M	SD	M	SD	M	SD			
Dominating	1.41	.61	1.65	.77	1.67	.61	1.48	97	.23
Indirect Fighting	1.56	.71	1.71	.63	1.73	.52	.74	97	.48
Collaborating	2.47	.90	2.53	.66	2.63	.72	.36	97	.70
Negotiating	2.35	1.10	2.53	.75	2.23	.73	.92	97	.40
Accommodating	1.97	.90	1.65	.65	2.23	.97	3.86	97	.03
Avoiding	1.76	.61	2.1	.75	1.73	.58	2.98	97	.06

None of the results show statistically significant differences between the groups, except for the style “accommodating”. However, post hoc test (Tukey) results showed that only the neutral and negative groups statistically differed from each other at the $p < .05$ level. It can therefore be concluded that there was no mood congruent bias.

Hypotheses and research question

The main research question for this thesis was: “Does mood influence test scores on a Situational Judgment Test aimed to measure social competences?” In order to answer this question, several hypotheses were postulated. First, the hypotheses were tested, followed by answering the research question. The hypotheses were tested using one-way ANOVAs.

First, we expected the overall score to be higher for the positive group than for the neutral and negative group (Hypothesis 1). Results of one-way ANOVA showed a significant medium effect, $F(2, 97) = 4.97, p < .01, \eta^2 = .10$, with the highest means for the negative ($M = 3.20$) and neutral mood group ($M = 3.15$) and the lowest mean for the positive mood group ($M = 2.68$). Except for the negative and neutral groups (*n.s.*), post hoc tests (Tukey) showed that all groups statistically differed from each other at the $p < .05$ level. Therefore, Hypothesis 1 was not supported. Contrary to what we predicted, participants in the neutral and negative mood group had significantly higher overall SJT-scores than those in the positive mood group.

We expected the absolute scores on the style “negotiating” to be higher for the positive mood group than for the neutral and negative mood groups (Hypothesis 2). However, one-way ANOVA showed no support for this hypothesis, $F(2, 97) = .92, n.s.$

For the style “collaborating” we expected higher SJT scores for the positive mood group than for the neutral and negative groups (Hypothesis 3). However, one-way ANOVA results showed no support either, $F(2, 97) = .36, n.s.$

Furthermore, we expected for the positive mood group to have lower scores on “dominating”, than the neutral and negative group (Hypothesis 4). The following one-way ANOVA results gave no support for this hypothesis, $F(2, 97) = 1.48, n.s.$

Hypothesis 5 predicted lower scores on “indirect fighting” for the positive mood group than for the control group, which would be in turn lower than the negative mood group. Again, one-way ANOVA results did not support this hypothesis, $F(2, 97) = .74, n.s.$ The figures for all hypotheses are summarized in Table 7.

Table 7

Means, Standard Deviations, and ANOVA results for all mood groups (Hypotheses 1-5)

	Condition						<i>F</i>	<i>Df</i>	<i>p</i>	η^2
	Positive		Neutral		Negative					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Hypothesis 1	2.68	.84	3.15	.66	3.20	.71	4.97	2, 97	< .01	.10
Hypothesis 2	2.35	1.10	2.53	.75	2.23	.73	.92	2, 97	.40	.02
Hypothesis 3	2.47	.90	2.53	.66	2.63	.72	.36	2, 97	.70	.01
Hypothesis 4	1.41	.61	1.65	.77	1.67	.61	1.48	2, 97	.23	.03
Hypothesis 5	1.56	.71	1.71	.63	1.73	.52	.74	2, 97	.48	.02

Finally, the research question concerned the two remaining style scores, whether mood had a differential effect on “accommodating” and “avoiding”. Two one-way ANOVAs were conducted. Results for “accommodating” showed a statistically significant effect, $F(2, 97) = 3.86, p < .05$, and a small to medium effect size ($\eta^2 = .08$), with the highest mean for the negative mood group ($M = 2.23$), followed by the positive mood group ($M = 1.97$), and the lowest mean for the neutral mood group ($M = 1.65$). However, post hoc test (Tukey) results showed that only the neutral and negative groups statistically differed from each other at the $p < .05$ level.

One-way ANOVA results for the style score “avoiding” indicated there was no statistically significant effect of mood, $F(2, 97) = 2.98, n.s.$

These analyses only partly confirm the research question. Mood had an effect on “accommodating”, but there was only a statistical difference between the means for the neutral and negative mood group. All other variances in the scores on these two style scores could not be explained by mood.

Discussion

The present study investigated whether mood influences social competences as measured by a Situational Judgment Test. By doing so, we extended existing literature on mood. Earlier research did not relate mood with social competences and examined in what way mood would influence social competences. This study showed that mood influences scores on a test that included social interactions and social reactions. More specifically, results showed that people in a negative or neutral mood had higher overall scores on a SJT aimed to measure social competences. The process by which mood influences the test scores is not straightforward. Several theoretical models could explain these findings.

One is that mood could function as information (e.g. Forgas, 1995; Isen & Daubman, 1984). Mood informs the person on the event; one inquires how one feels about the event and subsequently computes a judgment. Positive mood enhances the use of heuristics, whereas negative mood enhances systematic processing. For this study, this would imply that participants in a good mood process the social interactions of the SJT less thorough and make quick, hasty judgments on the interactions. On the other hand, the negative mood group would have a thorough and systematic manner of processing the social interactions. These different manners of processing could explain the differences in the scores. Perhaps the use of heuristics is less adequate to judge the effectiveness of the reactions and thereby explain the lower scores of the positive mood group. It also can be argued that systematic processing is a more adequate manner of processing for judging the reactions for this SJT, while the negative mood group had the highest overall score. However, this should be read with caution, because the negative and neutral mood group did not statistically significant differ from each other.

Another explanation could be given by the suggestion that affect has a priming function (e.g. Forgas, 1995; Forgas et al., 1984; Isen & Daubman, 1984). For the current study this would imply that mood influenced which stimuli the participants gave attention to, how these stimuli were encoded, and which information was retrieved. Thereby the interpretation of the social interactions were colored by the participant's mood, and influenced the interpretation of which reaction would be effective. For example, the social interaction could be interpreted by a participant in a good mood as a constructive discussion where no specific action would be required. The participant in a negative mood, however, could interpret the same interaction as a potential conflict, where immediate action is required. Because of these different interpretations of the same social interaction, different reactions would be differentially rated, depending on one's current mood.

A third explanation could be found in the suggestion that mood influences categorization (e.g. Isen & Daubman, 1984; Isen et al., 1985; Isen et al., 1992). These authors argue that positive mood enhances wider categorization, because they can come up with more positive material. Because

people in a positive mood have wider categorization, they interpret social situations differently than people in a neutral or negative mood. For the current study, this would mean the participants in a positive mood interpret the social interaction with a wider categorization with more positive material. Perhaps the different categorization could influence the interpretation of the situation and thereby influence the test scores.

The last explanation can be found in the literature on the effects of mood on persuasion (e.g. Mackie & Worth, 1989; Bless et al., 1996). Here it is argued that mood informs one on the nature of the situation. Positive mood indicates that one is in a comfortable situation, and therefore one can rely on heuristic processing. The opposite would hold true for negative mood and thereby elicits a cue to apply a more thorough way of processing. People in a positive mood are more likely to make global evaluations and reduce the message elaboration. For this study this would imply that the participants in the positive mood group feel comfortable to use heuristic processing and do not focus on the details of the social situation. The participants in the negative mood group, however, feel that the current situation is not comfortable and are therefore more elicited to change the situation and apply a more systematic way of processing. They focus on the specifics of the social situation and therefore compute other judgments than the participants in the positive mood. Again should this explanation be read with caution, while the differences between the negative and neutral mood group were not statistically significant. Differences can therefore not be fully attributed to the underlying processes inherent to effects by negative mood.

The fact that mood did not have an effect on the style scores, except for the effect on “accommodating”, is probably due to the few items the style scores are based on. We argue that if the style scores were composed out of more items, mood would have an effect on the style scores as well. A clear-cut interpretation for the effect of mood on the style score on “accommodating” cannot be given. This would not be sensible, while there was only a significant effect for the difference between the neutral and negative group, and no effect was found for the differences between the other mood groups. This is probably also explained by the fact that only few items composed this style score.

Practical relevance

Results showed that the most important SJT score, the overall score, was influenced by mood. A SJT is a tool commonly used in selecting job applicants. If the most competent applicant is to be selected, this should not be hindered by possible interfering variables that could influence the test scores. What the current results imply, is that one’s mood has an effect on the test results. This has implications for assessors. Assessors want to have non obtrusive results that are not influenced by interfering variables that the assessor does not want to measure. What the current results suggest

is that mood explains a part of the variance of the score, which is not a variable that is of interest of the assessor. Therefore, the procedure that precedes the SJT should be set up in such a way that mood is controlled as much as possible. This can be done, for example, by methods similar to the mood induction procedures used in experiments. Several mood induction procedures could be used in order to induce the desired mood, like the music induction procedure, or the video induction procedure. Just the presentation of a short film can already be effective in inducing a certain mood state (Westermann, Spies, Stahl, & Hesse, 1996).

This study only examined the influence of mood on a SJT, but it could be expected that mood influences other tests as well. For example, mood could influence how the applicant performs in role-playing during an assessment. As has been discussed before, mood can influence one's interpretation of social situations and, what this study proved, one's subsequent reaction on the social situation. It is beyond the scope of this study to make any predictions on the nature of the influence of mood on the performance during role-playing, but it can be expected that mood will play a role in the applicant's performance.

Limitations and Future Directions

Several limitations in this study should be noted. The first limitation concerns the sample of participants. The use of college students for this study limits the extent to which the results can be generalized to other contexts, like job applicants. Students can be differentially motivated to perform on the SJT than job applicants. Therefore, future research should address this limitation, and use different samples, like job applicants.

A second limitation concerns the mood induction procedure. The applied mood induction procedure could elicit demand characteristics. Participants were explicitly asked to get in a certain mood, which could result in consciously filling out the mood check and answering the questions in order to please the experimenter. Students, for example, in the negative mood group could fill out the mood check more negatively because they understood that they should be in a negative mood at that moment. However, giving explicit instructions was done for several reasons. First, Westermann, et al., (1996) argued that an explicit instruction helps participants to really get into the intended mood state. When participants are not instructed, they could have thoughts about the goal of the experiment that could interfere with concentration on the task. Furthermore, when explicitly instructed, one can use one's own idiosyncratic thoughts and feelings that suit them best in order to get in a certain mood. In addition, past research has shown that this mood induction has been effective for both subjective and objective measures (Gilboa-Schetman et al., 2000). However, we still suggest to conduct experiments that apply other mood induction procedures, like the film induction procedure, in order to replicate results.

A third limitation regards the applied measure for social competences. One of the deficits of this SJT is the small amount of items that composed the style scores. More items would probably give statistically significant results. In addition, the SJT that was used for this study was an existing SJT. It was not constructed for this study specifically and therefore the theoretical foundations were different from the constructs as discussed in the literature review. For example, the style score “negotiating” was based on the theory of Reuver (2003) and is different from the negotiation construct as described by Carnevale and Isen (1986). It can therefore be expected that the differences in theoretical foundations can influence the results that have been found in this study. A suggestion for future research would be to create a SJT that uses constructs similar to those as been described in earlier research. Furthermore, as has been discussed earlier, social competence is a broad concept, which is not measured easily by a single instrument. A SJT is only one instrument that attempts to measure social competences. Therefore future research should make use of several instruments in order to measure social competences and examine how mood influences the outcomes of these measurements.

Conclusion

This study examined the influence of mood on social competences as measured by a Situational Judgment Test. Mood was induced by a combined mood induction procedure and the mood checks indicated that the procedure was effective. We demonstrated that mood had an effect on SJT scores. The neutral and negative group outperformed the positive group on the overall score, which is the most important score of the SJT. This finding contributes to the mood literature, while no study has examined the relationship between mood and social competences. This finding also has practical relevance, while it has been demonstrated that a SJT, that can be used as a selection tool, is susceptible for mood fluctuations. We hope this study stimulates future research in experimental context to understand the nature of these effects as well as in a practical context to examine the effects for selection tools.

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Appendix A

The PANAS (Watson, Clark, & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now, that is, at the present moment.

Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

___interested	___irritable
___distressed	___alert
___excited	___ashamed
___upset	___inspired
___strong	___nervous
___guilty	___determined
___scared	___attentive
___hostile	___jittery
___enthusiastic	___active
___proud	___afraid

Appendix B

Demographics

- Name
- ID number
- Sex (Male/Female)
- Age
- Study
- Study year (B1, B2, B3, Master)
- Ethnicity (White/Caucasian, African/Black, Asian, Hispanic/Latino, Arab, other)

Appendix C

Mood manipulation check

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now, that is, at the present moment.

Use the following scale to record your answers.

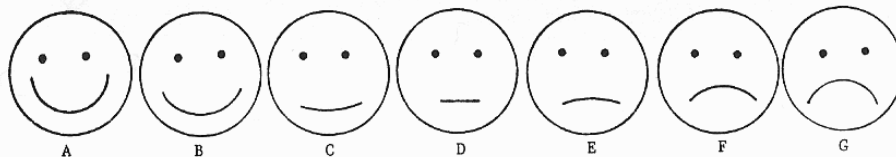
1	2	3	4	5	6	7
not at all	very slightly	somewhat	moderate amount	much	very much	extremely well

- ___ lively
- ___ distressed
- ___ excited
- ___ nervous
- ___ euphoric
- ___ elated
- ___ jittery
- ___ enthusiastic
- ___ fearful
- ___ peppy
- ___ anxious
- ___ annoyed

Appendix D

The faces scale

Which of the following faces depicts your current mood the best?



Appendix E

Table 2

Means, Standard Deviations, Internal Consistency Reliabilities, and Correlations

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Mood group	2.04	.81																							
2. Sex	1.22	.42	.15																						
3. Age	20.81	3.81	.04	.14																					
4. Study year	1.59	1.03	.02	.02	.12																				
5. Ethnicity	2.39	1.22	.05	-.03	-.06	-.10																			
6. Overall Score	3.00	.77	-.28**	-.13	.04	-.04	.08	(.69)																	
7. Dominating	1.57	.67	-.16	.05	.13	.00	.07	.26*	(.73)																
8. Indirect fighting	1.66	.63	-.11	-.02	.08	-.06	.08	.23*	.51**	(.47)															
9. Collaborating	2.54	.76	-.09	-.16	-.15	-.07	.03	.07	.11	.26*	(.58)														
10. Negotiating	2.38	.88	.05	.30**	.20	-.02	.07	.03	.24*	.31**	.49**	(.35)													
11. Accommodating	1.94	.87	-.11	.09	.06	-.03	.01	.08	-.08	.04	.30**	.22*	(.64)												
12. Avoiding	1.87	.67	.01	-.11	.05	-.05	-.02	.26**	.10	.19	.26**	.33**	.30**	(.15)											
13. Neuroticism	4.68	1.75	.01	-.17	-.09	.01	.10	.08	-.01	.20*	-.04	-.15	-.05	-.09	(.84)										
14. Extraversion	5.27	1.91	-.07	.14	.16	.08	-.08	-.08	-.01	-.23*	-.05	.08	-.04	-.09	-.16	(.81)									
15. Openness	6.21	1.77	.00	.25*	.11	.05	-.05	-.10	.20*	-.05	-.31**	-.08	-.13	-.19	-.07	.31**	(.72)								
16. Agreeableness	5.28	1.72	-.06	-.20	.08	.21*	-.19	-.01	-.21*	-.22*	-.13	-.01	.10	.08	-.29**	.15	.06	(.64)							
17. Conscientiousness	4.30	2.24	.07	-.14	.10	.10	-.04	-.12	-.04	.01	.03	.14	.12	.15	-.21*	.06	.07	.27**	(.77)						
18. PrePAS	3.87	.95	-.06	-.05	.07	.14	-.17	-.05	-.11	-.18	.01	.18	.06	.05	-.26**	.34**	.23*	.27**	.32**	(.86)					
19. PreNAS	1.68	.47	.19	.07	.20*	-.07	-.08	.08	-.10	-.06	.03	.09	.09	.15	.27**	-.07	-.05	-.24*	.00	.09	(.82)				
20. PostPAS	3.30	1.30	.65**	.12	-.15	.04	-.03	-.26**	-.14	-.01	.08	.22*	-.13	.06	-.08	-.02	.05	-.05	.04	.34**	.13	(.93)			
21. PostNAS	1.56	.77	-.34**	-.13	.02	.08	.12	.15	-.02	.08	.13	-.01	.26**	-.04	.12	-.20*	-.28	-.11	-.07	.06	.18	-.23*	(.87)		

Note. N = 98 for all variables; * $p < .05$ ** $p < .01$; Mood is coded: 3 = positive, 2 = neutral, 1 = negative; Sex is coded: female = 1, male = 2

PrePAS = positive dimension mood check previous to MIP; PreNAS = negative dimension mood check previous to MIP; PostPAS = positive dimension mood check after MIP

PostNAS = negative dimension mood check after MIP; Cronbach's alpha's are presented on the diagonal; Alpha's for the personality dimensions as reported by Hoekstra, Ormel and Fruyt (1996)

